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RESPONSE TO OBVIOUSNESS REJECTIONS OF CLAIMS 1 - 15

Claims 1 - 15 were rejected as obvious, based on Siefert and Ziv_El.

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Claim 1

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Claim 1 recites:

1. In a method of presenting educational lessons on a display, the improvement comprising:

- a) making an assessment of the educational standing of a person utilizing the display;
- b) selecting a list of lessons available;
- c) based on the assessment, identifying lessons available to the person and displaying corresponding icons on the display; and
- d) accepting selection of an icon from the person, and presenting the chosen lesson.

Point 1

The PTO relies on the Siefert reference to show claim 1(a), and Ziv-El to show the rest. However, claim 1(c) recites "identifying lessons available to the person" "based on **the assessment.**" "The assessment" is that of claim 1(a).

Thus, a logical problem arises in this application of the references. Ziv-El is cited to show "identifying lessons available" "based on **the assessment,**" but Ziv-El fails to show "the

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assessment." Consequently, Ziv-El's selection cannot be "based" on "the assessment."

Further, if "the assessment" refers to the assessment of the other reference, namely, Siefert, some connection between Ziv's selection and Siefert's assessment must be shown. But none has been shown.

Restated, why would Ziv-El rely on an "assessment" made in another patent, if Ziv-El did not discuss that reliance, or somehow connect his operation with that other assessment ?

Therefore, the claim recitation of making the selection "based on the assessment" is not found in the references, even if combined.

Point 2

Ziv-El states that the teacher selects a group of lessons, from which the student makes choices. (Column 20, lines 20 - 22.) But Ziv-El appears to say nothing about the teacher's making the selection "based on" an "assessment." Thus, at best, Ziv-El may show claim 1(b), wherein the teacher selects the group, but not claim 1(c), selecting/selecting based on assessment.

Point 3

Ziv-El appears to be contradictory to the notion of assessing the student, and then presenting a list from which the student can

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choose a lesson. One reason is that Ziv-El states that the student may take a self-paced approach, if desired. (Column 20, line 11.) Such a student would seem to choose his/her own lessons, and assessment would seem non-relevant.

Conclusion of Points 1 - 3

Therefore, Applicants submit that, even if the references are combined, claim 1 is not attained. MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

Point 4

Official Notice has been taken that "icons" are widely known. In response, the undersigned attorney respectfully traverses the Official Notice, and requests a citation of evidence showing the icons. (See MPEP § 2144.03.)

One reason is that no evidence has been given which shows that the Noticed icons lie in a technical field which is analogous to Siefert, Ziv-El, or Applicants' claims.

A second reason is that, since neither Siefert nor Ziv-El appear to discuss the Noticed icons, Applicants believe Applicants are entitled to an explanation of why a new element (the icons) should be added to these references.

In addition, the vehicle of "Official Notice," if properly

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used, merely removes the requirement of citing a paper document to show the Noticed subject matter. But "Official Notice" does not remove the requirement of showing a **teaching** for combining the Noticed subject matter with the other references.

No teaching for adding icons to the applied references has been shown. Thus, even if the icons are present in the prior art, no teaching has been given for combining them with Siefert and Ziv-El.

No Teaching Given for Combining References

The rationale given for combining the references is that

[The combination of references allows] the user to have greater autonomy in choosing the lesson to be received.

(Office Action, page 3, center of page.)

However, several problems exist in this rationale.

PROBLEM 1

One is that "greater autonomy" is merely a characteristic supposedly obtained when the references are combined. However, the references, when combined, would also contain dozens, if not hundreds, of **other characteristics**. Plainly, the existence of any given characteristic in the references, after being combined, is not a teaching for making the combination in the first place.

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Stated another way, it is reasonable to assume that the references, when combined, will possess some characteristics. It would seem **impossible** that **no characteristics** would be present. Given that, Applicants fail to see how identification of a specific characteristic acts as a teaching under section 103 for combining the references.

PROBLEM 2

A second problem is that no teaching in the prior art has been given which suggests that pursuit of "greater autonomy" is desirable. A teaching is required.

PROBLEM 3

A third problem is that the pursuit of "greater autonomy" is **directly contrary** to claim 1. Claim 1(b) states that a "list" of "available" "lessons" is "selected." However, not all lessons are made available to the student. Claim 1(c) states that "lessons available to the person" "based on the assessment" are made available (through display of icons).

Thus, claim 1 teaches against "greater autonomy." A teaching for combining references cannot be used, if it is contrary to a claim teaching.

If the student in claim 1 had true autonomy, the student could select any lesson whatever. But that is not the case in claim 1.

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PROBLEM 4

A fourth problem is that the rationale does not follow the CAFC's decision of In re Dembiczak, 175 F. 3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999).

In brief, Dembiczak states that

- **objective evidence** of a teaching for combining references must be provided;
- the Examiner's speculation does not qualify as objective evidence;
- numerous sources can provide a teaching to combine references;
- knowledge of one skilled in the art can act as a source;
- however, THE RANGE OF SOURCES AVAILABLE DOES NOT DIMINISH THE REQUIREMENT FOR ACTUAL EVIDENCE;
- broad conclusory statements by the Examiner do not qualify as evidence; and
- "particular factual findings" as to the teaching are required, and gives reasons why **facts** are necessary.

In the present case, no "particular factual findings" based on "evidence" have been given.

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Therefore, for the preceding reasons, Applicants submit that the rejection is insufficient under section 103.

Claim 3

The subject matter of claim 3 has not been shown in the prior art. Claim 3 recites:

3. Method according to claim 1, wherein the educational standing is sometimes measured **by reference to the path** taken by the student through materials available for examination.

The Specification, near its end, in "Additional Consideration" number 4, provides an example of the claimed type of measurement, using the "path":

Additional Considerations

. . . .

4. Assessment of the student's current status was discussed above. One element which can be used in the assessment can be a trace of the **student's path** through the materials presented by the professor. Such a trace is commonly called a "clickstream."

For example, if a student in a Chemistry course repeatedly returns to a lesson which explains the concept of Avogadro's number, it may be assumed that the student is weak in that concept, and that remedial teaching is required in that, or a related, topic.

The subject matter of claim 3 has not been shown in the prior art. Thus, the rejection fails to comply with MPEP § 2143.03,

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cited above.

Claims 4 and 5

Claims 4 and 5 are considered patentable, based on their parents. In addition, the PTO's modification of Siefert, to reach claims 4 and 5, seems to fail to comply with Dembiczak.

Claims 6 and 7

The Office Action takes Official Notice that active and inactive icons are well known in video games. In response, the undersigned attorney respectfully traverses the Official Notice, and requests a citation of evidence showing such icons. (See MPEP § 2144.03.)

One reason is that no relevance is seen between video games and the claimed invention.

In addition, a logical flaw seems to exist in the Office Action's position. First, inactive icons in video games are Officially Noticed. Those Noticed icons represent situations which may occur, or be available, in the future to the game player. Specifically, the Office Action states:

. . . certain advanced scenarios [which] are not available for selection until certain tasks are performed.

(Office Action, page 4, top.)

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Then, the Office Action asserts that, regarding the invention, inactive icons representing lessons would be obvious, to represent lessons which may be available in the future.

Thus, the Office Action makes an analogy between (1) future scenarios in video games and (2) future lessons under the invention.

However, don't video games also use "inactive," or "greyed-out," icons for other purposes ? For example, when a player kills invading aliens, don't they sometimes turn "grey," ie, inactive.

As another example, in a pinball-type game, don't certain icons remain inactive until an adjacent target-icon is struck by the ball ? Then, the inactive icons become active, and will issue points if struck.

As a third example, in a shooting-type game, don't some icons remain inactive until random times, at which they begin to attack the player ?

Therefore, three other types of inactive icons found in video games have been suggested. None of those seem analogous to the "future-lessons icon" postulated by the PTO.

Consequently, Applicants suggest that a teaching is required for arbitrarily Noticing the "future scenarios icon" supposedly found in video games, to the exclusion of the other three just postulated.

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From another point of view, even if the PTO's Noticed grey icons are accepted, no teaching has been given for combining that type of icon with Siefert and Ziv-El, as opposed to the three types just enumerated.

In addition, Applicants repeat that Official Notice is a tool to eliminate finding the Noticed subject matter in a printed publication, for example. Official Notice does not eliminate a need for a teaching for combining the Noticed subject matter with the other two references.

No teaching has been given.

Point re: Claim 6

Claim 6 recites:

6. Method according to claim 1, wherein some courses on the list are not represented by icons.

This concept has not been shown in the prior art, not even in the Noticed subject matter. MPEP § 2143.03 states:

To establish prima facie obviousness . . . **all the claim limitations** must be taught or suggested by the prior art.

Claim 8

Claim 8 recites:

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8. A system, comprising:

a) a computer system, which includes presentation means for presenting audio-visual information to students;

b) multiple, different courses, stored in the computer system, each comprising a collection of lessons;

c) for each student in a group, a student data model, which contains information describing the student's educational status;

d) for each course, a course structure file, which indicates

i) which lessons in the course can be taken by the student without restriction, and

ii) which lessons require prerequisite courses be taken first;

e) framework software means which

i) identifies a student,

ii) examines (1) that student's data model and (2) the course structure, and,

iii) based on the examination, makes a determination of options to display to the student, and

iv) displays the options.

Claim 8(d)(i) and (ii) have not been shown in the prior art. Applicants point out that this claim passage refers to **courses**, not **students**.

Nor have claim 8(e)(i) through (iv) been shown in the prior

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art.

Claim 9

Claim 9 has been cancelled.

Claims 10 - 13

The Office Action takes Official Notice of two elements.

First Element

Applicants respectfully traverse the first Notice (regarding adding icons upon achievement of certain tasks), and request a citation of evidence showing such icons. (See MPEP § 2144.03.)

One reason is that the Notice relies on video games. Applicants fail to see relevance of video games to the present invention.

In addition, no teaching has been given for adding the video-game icons to Siefert and Ziv-El. For example, the Official Notice relies on a hypothetical video game which displays a special icon making available an advanced level of play, when a player scores a threshold number of points. Even if such video games exist, no teaching has been given for combining that approach with Siefert and Ziv-El.

In fact, it would seem that video games represent non-analogous art. One reason is that video games are played

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repeatedly, in order to attain the higher levels of mastery suggested by the PTO. Applicants submit that this level of repetition is not found in educational pursuits.

A second reason is that, in educational pursuits, some courses are required as pre-requisites for others. The undersigned attorney is unaware of video games which are pre-requisites for others, although he is no expert in the field of video games.

Second Element

Applicants also traverse the second element, and request evidence.

In addition, Applicants point out an apparent logical flaw in the second element. That element is this:

. . . It is well known to remove options for choosing lessons where the user has already demonstrated mastery of the material.

Isn't this contrary to the PTO's Notice of icons in video games ? That is, when players score larger numbers of points, don't they get **MORE** options, not fewer ?

Also, the undersigned attorney cannot agree that the Noticed element actually exists. For example, assume that a student obtains straight A's in a Master's Degree program in Computer Science. That student has thereby demonstrated "mastery of the

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material," correct ? What "options" for choosing lessons are then removed from such a person ?

Doesn't the student actually obtain **MORE** options, at least because of the respect earned in the faculty of the college ? The faculty is the agency controlling the options, correct ? If the faculty is impressed with the student, doesn't the student get more "options" ?

Is the PTO suggesting that the Registrar, or faculty, of that person's college will now restrict the number of courses to which the person has access ?

Additional Point

The PTO asserts that it is "inherent in a method of providing lessons" to provide this step of removing options. MPEP § 2112 states:

EXAMINER MUST PROVIDE RATIONALE OR EVIDENCE
TENDING TO SHOW INHERENCY.

In relying upon the theory of inherency, the examiner must provide a **basis in fact and/or technical reasoning** to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.

Applicants request that the "basis in fact and/or technical reasoning" required by this MPEP section be provided.

One reason is the following. From 1979 to 1981, the

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undersigned attorney was a graduate student in Electrical Engineering at the University of Illinois, Champaign-Urbana, and acted as a teaching assistant. As a teaching assistant, he "provided lessons."

He can recall no instance of withdrawing any options for choosing lessons, when a student demonstrated mastery of any material.

For at least this reason, the "inherent" subject matter seems dubious, and support for it is requested.

Claim 14

Applicants point out that claim 14(c)(i) states that

- 1) "first software means" runs on a server,
- 2) which delivers a packet to the remote computer (eg, the student's PC),
- 3) the data packet contains icons, which the student actuates, and
- 4) the student's actuation causes lessons to be delivered to the student's PC.

That has not been shown in the applied art.

Nor has the combination of the second software means with the first software means.

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Claim 15

Claim 15 is considered patentable, based on its parent, claim 14.

Response to Rejection of Claims 16 - 18

Claims 16 - 18 were rejected as obvious, based on Siefert, Ziv-El, and Truluck. Claim 16 recites:

16. Method according to claim 1, and further comprising the steps of (1) detecting the arrival of predetermined periods in time and (2) during said periods, refraining from making lessons available to the display.

Point 1

Applicants submit that, even if the references are combined, claim 16 is not attained. One reason is that claim 16 recites "predetermined periods in time" and "refraining from making lessons available to the display" "during said periods."

Restated, during the "periods," no lessons are "available to the display." Thus, no students at all can see lessons, during the period. The Specification, page 11, provides examples explaining why such an arrangement can be useful. For instance, during mid-term examinations, all computer-lessons are prohibited, to all students.

According to the Office Action, Truluck shows this

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prohibition, because he shows a schedule of lessons for each student. The Office Action asserts that, since a student does not get a lesson between lessons, the "in-between" period of Truluck shows the prohibition of claim 16.

However, Truluck does not prohibit **ALL** lessons, he just says that a given student does not get lessons between lessons. But **OTHER** students may get lessons at that time.

From another point of view, even if Truluck is combined with the other two references, the prohibition of claim 16 is not attained. In Truluck, no lessons are presented during predetermined times, **BUT ONLY FOR THE STUDENT WHO DEFINES THOSE "DEAD" TIMES IN HIS OWN SCHEDULE.** But the "display" of claim 1 would still present lessons for **other students.**

Stated more simply:

-- Truluck states that, at certain times, a **given person** takes no lessons. But other persons can still take lessons at those times, and nothing in Truluck prevents that.

-- In contrast, claim 16 states that, at certain times, a **display** of the system receives no lessons. That is not what Truluck shows. His display could display lessons 24 hours per day, but to different students.

Stated yet more simply:

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-- The student's schedule in Truluck places limits on what the **student** receives.
-- But it places no limits on what Truluck's system delivers to **other** students. Those other students could watch the display at all times, contrary to claim 16.

Point 2

It appears that the PTO is reading Truluck in an unjustified way. The PTO is apparently assuming that, once a student in Truluck sets up a schedule, that schedule is "cast in stone."

However, Truluck states that the schedule can change. (Column 5, lines 9 - 14.) Truluck also states that the student can change the schedule. (Column 6, lines 13 - 15.)

Therefore, the PTO asserts that Truluck's student sets up a schedule of classes. The PTO assumes that, between the classes, no computer-given classes will be attended by the student. The PTO treats those between-class periods as the "predetermined periods" of claim 16.

But claim 16 states "(2) during said periods, refraining from making lessons available to the display." If Truluck's student can change the schedule at-will, which he can, then the claimed "refraining" is not present.

The preceding applies to claims 17 and 18.


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Conclusion

Applicant requests that the rejections to the claims be reconsidered and withdrawn.

Applicant expresses thanks to the Examiner for the careful consideration given to this case.

Respectfully submitted,


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ATTACHMENT: Annotated Claim(s) Showing Amendments

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ATTACHMENT: Annotated Claim(s) Showing Amendments

3. Method according to claim 1, wherein the educational standing is [sometimes] measured at least once by reference to the path taken by the student through materials available for examination.